

In the moist forest along the lake shore, mosses and hepatics cover the ground and boulders in a thick mat. The most important species are *Lophozia incisa* (Schrad.) Dumort., *L. longidens* (Lindb.) Macoun, *L. Hatcheri* (Evans) Steph., *L. Kunzeana* (Hüben.) Evans, *L. obtusa* (Lindb.) Evans, *L. attenuata* (Mart.) Dumort., and *Tritomaria quinqueidentata* (Huds.) Buch. The disjunct western species, *Timmia austriaca* Hedw., was locally common in a few places at the edge of the forest just above the rocky shore ledges. Most of the swamps and bogs were too dry to make satisfactory collecting or even survey work possible, so that the work in these habitats was postponed until a more favorable season.

(To be continued)

THE TYPIFICATION OF ACALYPHA VIRGINICA L.

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ACALYPHA VIRGINICA has no original diagnosis in the Species Plantarum. It rests on citations from the Hortus Cliffortianus, Flora Zeylanica and Hortus Upsaliensis of Linnaeus, from Plukenet and from Gronovius. There is a specimen in the Linnaean herbarium, presumably there in 1753 and labelled by Linnaeus "1 virginiana." In the Hortus Cliffortianus, there is a brief original diagnosis, or rather phrase-name, insufficient to determine what Linnaeus had before him; but there is no specimen in the Clifford herbarium. There is no original diagnosis in the Hortus Upsaliensis. The citations from Plukenet and Gronovius are represented by specimens.

When I revised the group of *A. virginica* in 1927¹ I had seen none of the above specimens. I had before me the statement of Mueller Argovensis² that the specimen in the Linnaean herbarium represented the plant of the Upsala garden and certain notes most generously lent me by Dr. S. F. Blake who had himself been interested in the group and who had looked up the material in the herbaria at London. These notes stated that although, as I pointed out, Plukenet's figure resembled rather *A. virginica* β *intermedia* Muell. (*A. digyneia* Raf.), the specimen back of it was actually *A. virginica* α *genuina*; also that Clayton 201, on which the Gronovian citation rests, was *A. virginica*

¹ RHODORA, xxix. 193-204 (1927).

² in DC. Prod. xv. pt. 2, 869 (1866).

β *intermedia*. On the basis of the two statements, that the specimen in the Linnaean herbarium represented the plant of the Upsala garden, which Linnaeus of course had seen, and that the plant of Plukenet was the same, I accepted Mueller's application of the name *A. virginica* to the species to which the Linnaean specimen belongs and took up *A. digyneia* Raf. for that represented by Clayton 201.

In 1928, Mackenzie pointed out¹ that the Linnaean specimen was wholly without data and that Mueller's confident assertion rested on inference only—probable enough, but still no more than inference. And last fall, when I had an opportunity myself to examine the specimens concerned, I found that Dr. Blake had apparently been the victim of an unfortunate and unsuspected accident. For the specimen in Plukenet's herbarium (herb. Sloane, vol. 96, fol. 188) labelled with the phrase-name cited by Linnaeus, indexed by Sloane as the original of plate 99, figure 4, and corresponding so exactly to that figure that there can be little, if any, doubt that the artist worked from it, is not at all *A. virginica* of my treatment but very good *A. digyneia*. In all respects—shape of leaves, relative length of blade and petiole, presence of long, spreading hairs on the stem, number and shape of lobes and type of pubescence of the bract, and length of the staminate spike—it is so excellent an example of that species that I cannot suppose that Dr. Blake, who understood the entities concerned as I do, could have determined it otherwise except by some slip. Incidentally, two other specimens in the herbarium of Plukenet bearing the same phrase-name, are also *A. digyneia*. So is Clayton 201; here Dr. Blake's determination met with no mishap.

This puts a very different face on the matter of typification. The specimen of Linnaeus is now shown to represent certainly nothing but a determination made by him; Plukenet's specimen is not the same. The citations from him and from Gronovius are perfectly consistent. There is nothing but the citation from Plukenet, common to both, to indicate the identity of the plants of the Hortus Cliffortianus and Hortus Upsaliensis. Everything which can be definitely associated, as an original, with *A. virginica* L. is *A. digyneia* Raf. Under the circumstances there seems no other course than to transfer the Linnaean name to that species and to take up for *A. virginica* of my treatment the first clearly applicable name, *A. rhomboidea* Raf. This has already been done by Small, Man. se. Fl. 786 (1934).

¹ RHODORA, xxx, 236 (1928).

Mackenzie arrived at the same conclusion, but by a route I should not have followed. He selected the Clayton specimen as the type and said he would have done so even had that of Linnaeus been certainly the plant of the Upsala garden. To this, I should not have agreed; but since the plant of the Linnaean herbarium is not authentic, I must accept Mackenzie's conclusion if not his argument.

The nomenclature and synonymy of the two species concerned now become:

ACALYPHA RHOMBOIDEA Raf. New Fl. i. 45 (1836). *A. caroliniana* Walt. Fl. Car. 238 (1788)? (nomen dubium); certe sensu Michx. Fl. Bor.-Am. ii. 216 (1803). *A. crenulata* Raf. op. cit. 44 (1836), quoad synonyma citatum. *A. virginica* α *genuina* Muell. Arg. Linnaea, xxxiv. 44 (1845). *A. virginica* sensu Weatherby, RHODORA, xxix. 194 (1927), non L. (1753).

Var. **Deamii**, comb. nov. *A. virginica*, var. *Deamii* Weath. RHODORA, xxix. 197 (1927).

A. VIRGINICA L. Sp. Pl. 1003 (1753), excl. syn. Fl. Zeyl. *A. digyneia* Raf. Fl. Lud. 112 (1817); Weath. RHODORA, xxix. 198 (1927). *A. crenulata* Raf. New Fl. i. 44 (1836), quoad plantam descriptam? *A. brevipes*, var. *pubescens* Raf. l. c.? *A. virginica* β *intermedia* Muell. Arg. Linnaea, xxxiv. 45 (1865).

GRAY HERBARIUM.

PRESERVATION OF PLANT MATERIAL IN NATURAL COLORS

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WHILE the usual method of preparing herbarium specimens by drying and pressing the plant material has been satisfactory for preservation and identification, there is no doubt that the preservation of the natural color of the flowers and foliage would facilitate the identification of the specimens and differentiation of closely allied species. It is true that the newer method of rapid drying in controlled heat retains more of the natural color of the foliage and flowers, but the normal appearance of the floral parts is altered by the pressing.

Various solutions have been employed to preserve plant material, but most of them have had the disadvantage of decolorizing the foliage as well as the flowers. During the past three years I have tried out a number of solutions and formulae with some success, which is reported here.